

FACT SHEET FOR NPDES PERMIT WA0041971
MERINO'S SEAFOOD, INC.

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INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System of permits (NPDES permits), which is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the state of Washington on the basis of Revised Code of Washington (RCW) 90.48 which defines the Department of Ecology's (the Department) authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the state include procedures for issuing permits [Chapter 173-220 Washington Administrative Code (WAC)] and water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least 30 days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see Appendix A--Public Involvement of the fact sheet for more detail on the Public Notice procedures).

This fact sheet has been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Comments and the resultant changes to the permit will be summarized in Appendix D—Response to Comments.

GENERAL INFORMATION	
Applicant	Merino's Seafood Inc.
Facility Name and Address	1804 Nyhus Street Westport, Washington
Type of Facility	Fish and Shellfish Processing
SIC Code	2092
Discharge Location	Waterbody name: Grays Harbor Latitude: 46°54'25"N Longitude: 124°06'02"W
WaterBody ID Number	WA-10-22-03

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

HISTORY

On May 3, 1995, the Department answered a complaint and discovered that Merino's Seafood had been operating a boatyard and processing crabs while discharging process wastewater without wastewater treatment for two years. Applications for wastewater discharge permits with a 30-day submission deadline were sent to Merino's Seafood on May 15, 1995. A second set of applications was hand delivered on June 15, 1995. The Department facility manager conducted technical assistance visits during June and July, culminating in the receipt of an application for fish processing on August 1, 1995. No boatyard permit application was processed since this operation was closing down. A permit was issued on April 17, 1996.

On November 5, 1996, a letter of non-compliance was sent to the Permittee showing exceedances from April 15, 1996, to June 15, 1996.

On July 8, 1997, Department inspectors visited the site to discover that the Merino's Seafood, Inc. physical plant had been expanded to mechanically process pacific whiting. These whiting had been mentioned in the comments to the draft permit, but the process was not specified. The regulated parameters of wastewater from the production far exceeded the limits in the permit.

Order No. DE 97WQ-S375 and Penalty No. DE 97WQ-S376 were issued to Merino's Seafood Inc. for the following violations:

- Exceeding permitted effluent limits;
- Eight monthly discharge monitoring reports submitted late;
- Four monthly discharge monitoring reports not submitted; and
- Failure to submit a Solid Waste Control Plan and a treatment system operating plan.

The penalty and order were appealed on November 14, 1997.

A settlement agreement was completely executed September 2, 1998. Under the terms of this agreement, Merino's Seafood agreed to submit an engineering report for wastewater treatment facilities to the Department by October 31, 1998. This engineering report was not submitted. A set of plans for a discharge pipeline was submitted and approved.

INDUSTRIAL PROCESS

Based on the application submitted by the Permittee on March 3, 1999, Merino's Seafood processes the following products:

- Dungeness Crab – From mid-December through February, live crab are received at the dock and processed into whole crab, cluster packs, and picked crabmeat. From mid-March through September, activity is mostly limited to shipping of live crab. When the market is favorable, crab frozen in the December-February period is processed for sale in the March-September period. Solid waste is recycled to a chitin extraction plant. Cooking water and washing water are treated and discharged.

- Pacific Whiting – Pacific Whiting are caught in the period May-October. These fish are mechanically headed and gutted. They are then either frozen and shipped whole, or filleted, frozen, and shipped. Solid waste is sent to a rendering plant. Washing water is treated and discharged.
- Bottom Fish – A variety of finfish are caught as by-catch and other fishing operations. These are filleted and shipped. Solid waste is sent to a rendering plant. Washing water is treated and discharged.
- Salmon – Troller caught salmon are headed and gutted when they arrive at the dock. Netted salmon are brought in whole and are butchered and shipped either fresh or frozen. Solid waste is sent to a rendering plant. Washing water is treated and discharged.
- Black Cod – These are cleaned at sea. They are given minimal processing ashore before being shipped. Washing water is treated and discharged.
- Shrimp – Unloading and shipping are the only activities at Merino's for shrimp catches.
- Tuna – Tuna is received either fresh or frozen. Pre-frozen tuna are shipped as is. Fresh tuna may either be frozen and shipped whole or butchered in various ways and shipped either fresh or frozen. Solid waste is sent to a rendering plant. Washing water is treated and discharged.

Production, times of work, and staff employed depends on the wild population of seafood and so is quite variable. The National Marine Fisheries Service controls seasonal variation. The site is crowded, consisting of a leased land area of only 3,000 square feet covered by a two-story building. A dock extends out over the boat basin. Merino's Seafood has instituted a strong water use reduction program both to meet discharge limits and reduce costs. This is a permit renewal.

The Permittee has reduced water use to the minimum compatible with product quality.

Wastewater treatment is as follows:

Wastewater is routed to a tangential screen where large solid particles are separated from the flow. Screened wastewater is then pumped to a surge tank. From the surge tank, the effluent is routed to a bubble chamber where the water is mixed with coagulant chemical and impregnated with air. After this step, the waste stream is discharged to a baffled flotation tank where the oil and solid wastes float to the surface to be skimmed off and wasted. Schematics of this system are included in this fact sheet as Appendix C.

DISCHARGE OUTFALL

The outfall is a pre-existent concrete vault at Firecracker Point at the south entrance to the Westport Boat Basin. This vault has four 24-inch diameter pipes extending out into the Elk River channel in Grays Harbor. An approved mixing zone study has been done for this outfall.

PERMIT STATUS

The previous permit for this facility was issued on April 17, 1996. The previous permit placed effluent limitations on biochemical oxygen demand, total suspended solids, oil and grease, pH, and flow.

An application for permit renewal was submitted to the Department on March 3, 1999, and accepted by the Department on March 17, 1999.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on April 18, 1996. In addition to this inspection, the facility has received ten technical assistance visits. To evaluate the performance of the Permittee it is necessary to understand the products and seasons that affect the wasteload. Processing bottom fish (other than hake) is an insignificant part of this operation, as is the unloading and transferring of previously processed and frozen fish. The three significant waste streams discharging from Merino's Seafood come from processing of fresh-caught crab, the reprocessing of frozen crab, and the processing of hake (pacific whiting). The crab harvest season occurs in the winter. Crab cooking water is higher in pollutants than the wastewater from processing frozen crab, although the categorical limits are the same for both processes. The mechanical processing of hake, begun in July of 1997, introduced a highly polluted waste stream that caused difficulties until a form of air flotation treatment was introduced in 1999. The reliability of the data in the DMRs has improved over the years as the Permittee has learned to calculate the production based limits. Some of the reports from the Permittee have been corrected at Ecology. Present reporting performance is correct. A tabulation of DMR results is shown in Appendix C.

Summary of Performance in 1996

Sampling and testing began in April accompanying the hand processing of bottom fish, but was interrupted by a period on non-production from May through November. During this period, average limits for TSS and both average and daily maximum limits for oil and grease were violated. Live crab processing began in December with violations of three of six categories.

Summary of Performance in 1997

The live crab processing begun in 1996 continued into January of 1997 with much the same results. One-half of the January tests failed. There was no production in February and March. DMRs were not submitted for April, May, and June. Hake were first processed in July, August, and September with less than 50 percent of the tests passing. Only two parameters met the limits in August, and one parameter (maximum BOD) passed by a margin of 3 percent.

Summary of Performance in 1998

The January samples were damaged before arriving at the laboratory, so no conclusions can be reached. Production ceased in February, March, and April. During the hake processing season May through September, no sample passed in May, June, July, and August. September saw two-thirds of the samples fail. Hake processing ceased on October 10, with only oil and grease failing in October. Crab processing began in November with average TSS and maximum oil and grease failing to pass. December 1998 was the first DMR since April of 1996 to show complete passing performance.

Summary of Performance in 1999

Crab processing continued through January and February with only the average TSS failing in both months. March, April, and May were non-production months. The hake processing season from June through October showed much improvement over previous years. This improvement coincided with the installation of the air flotation device in the treatment process. There was still one exceedance per month in June, July, September, and October, but August was the second exceedance-free month in the sampling history of this facility. Crab processing in December showed average TSS exceeding the limits.

WASTEWATER CHARACTERIZATION

Based on a one-time grab sample taken for the EPA Forms 1 and 2-C dated March 1, 1999.

Table 1: Wastewater Characterization, Crab Processing Season

Parameter	Average Concentration
BOD ₅	51 mg/l
TSS	29 mg/l
O & G	2 mg/l

Based on the document A Mixing Zone Study, Richard A. Moore, P.E., Peninsula Engineering, 1998, the proposed wastewater discharge is characterized for the following parameters:

Parameter	Average Concentration
BOD ₅	1650 mg/l
TSS	640 mg/l
O & G	271 mg/l

24-Hour composite samples

PROPOSED PERMIT LIMITATIONS

Federal and state regulations require that effluent limitations set forth in a NPDES permit must be either technology- or water quality-based. Technology-based limitations are based upon the treatment methods available to treat specific pollutants. Technology-based limitations are set by regulation or developed on a case-by-base basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC), or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The more stringent of these limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

The limits in this permit are based in part on information received in the application. The effluent constituents in the application were evaluated on a technology- and water quality-basis. The limits necessary to meet the rules and regulations of the state of Washington were determined and included in this permit. The Department does not develop effluent limits for all pollutants that may be reported on the application as present in the effluent. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation. If significant changes occur in any constituent, as described in 40 CFR 122.42(a), the Permittee is required to notify the Department.

DESIGN CRITERIA

In accordance with WAC 173-220-15 (1)(g), flows or waste loadings shall not exceed approved design criteria.

The treatment system was designed to handle average flows of 100 gpm and peak flows of 250 gpm. Using available data for wastewater characteristics similar to the wastewater characterization submitted in the

permit application, the system was designed for removal efficiencies of 90 percent of total suspended solids, 50 percent of biochemical oxygen demand, and 95 percent of fats, oils, and greases.

MERINO'S SEAFOOD
Air Flotation Performance Trials
Various Polymer Additions
August 3, 1999

Parameter	Untreated	Trial 1, Pounds	% Removal	Trial 2, Pounds	% Removal	Trial 3, Pounds	% Removal
BOD	2476.69	603.88	76	458.65	81	359.27	85
TSS	1630.74	232.51	86	158.62	90	120.39	93
O & G	150.33	18.47	88	10.83	93	15.93	89

All trials pass the permit limitations. Note that the system does much better than design for BOD, performs as expected on TSS, and falls just a little short on O & G.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

The limitations in this permit are based on limits stated in the Federal Register, 40 CFR Part 408, Subpart H, Dungeness and Tanner Crab processing in the Contiguous States Subcategory, Subpart N, Tuna Processing Subcategory, Subpart R-West Coast Hand Butchered Salmon Processing Category, Subpart U, Non-Alaskan Conventional Bottom Fish Processing Subcategory, Subpart V, Non-Alaskan Mechanized Bottom Fish Processing Subcategory for Pacific Whiting. The fecal coliform limits are presumed to be "all known available and reasonable" technology-based limits based upon the performance of Ocean Spray Cranberries which has a facility nearby.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the state of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in a receiving water while remaining protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA 1992). These criteria are designed to protect humans from cancer and other disease and are primarily applicable to fish and shellfish consumption and drinking water from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the state of Washington.

ANTIDegradation

The state of Washington's Antidegradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. More information on the State Antidegradation Policy can be obtained by referring to WAC 173-201A-070.

The Department has reviewed existing records and is unable to determine if ambient water quality is either higher or lower than the designated classification criteria given in Chapter 173-201A WAC; therefore, the Department will use the designated classification criteria for this water body in the proposed permit. The discharges authorized by this proposed permit should not cause a loss of beneficial uses.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the waterbody's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses.

WHOLE EFFLUENT TOXICITY

The Water Quality Standards for Surface Waters require that the effluent not cause toxic effects in the receiving waters. Many toxic pollutants cannot be detected by commonly available detection methods. However, toxicity can be measured directly by exposing living organisms to the wastewater in laboratory tests and measuring the response of the organisms. Toxicity tests measure the aggregate toxicity of the whole effluent, and therefore this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

Acute toxicity tests measure mortality as the significant response to the toxicity of the effluent. Dischargers who monitor their wastewater with acute toxicity tests are providing an indication of the potential lethal effect of the effluent to organisms in the receiving environment.

Chronic toxicity tests measure various sublethal toxic responses such as retarded growth or reduced reproduction. Chronic toxicity tests often involve either a complete life cycle test of an organism with an extremely short life cycle or a partial life cycle test on a critical stage of one of a test organism's life cycles.

Organism survival is also measured in some chronic toxicity tests.

In accordance with WAC 173-205-040, the Permittee's effluent has been determined to have the potential to contain toxic chemicals. The proposed permit contains requirements for whole effluent toxicity testing as authorized by RCW 90.48.520 and 40 CFR 122.44 and in accordance with procedures in Chapter 173-205 WAC. The proposed permit requires the Permittee to conduct toxicity testing for one year in order to characterize both the acute and chronic toxicity of the effluent.

If acute or chronic toxicity is measured during effluent characterization at levels that, in accordance with WAC 173-205-050(2)(a), have a reasonable potential to cause receiving water toxicity, then the proposed permit will set a limit on the acute or chronic toxicity. The proposed permit will then require the Permittee to conduct WET testing in order to monitor for compliance with either an acute toxicity limit, a chronic toxicity limit, or both an acute and a chronic toxicity limit. The proposed permit also specifies the procedures the Permittee must use to come back into compliance if the limits are exceeded.

Accredited WET testing laboratories have the proper WET testing protocols, data requirements, and reporting format. Accredited laboratories are knowledgeable about WET testing and capable of calculating an NOEC, LC₅₀, EC₅₀, IC₂₅, etc. All accredited labs have been provided the most recent version of the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* which is referenced in the permit. Any Permittee interested in receiving a copy of this publication may call the Ecology Publications Distribution Center (360) 407-7472 for a copy. The Department recommends that Permittees send a copy of the acute or chronic toxicity sections(s) of their permits to their laboratory of choice.

When the WET tests during effluent characterization indicate that no reasonable potential exists to cause receiving water toxicity, the Permittee will not be given WET limits and will only be required to retest the effluent prior to application for permit renewal in order to demonstrate that toxicity has not increased in the effluent.

If the Permittee makes process or material changes which, in the Department's opinion, results in an increased potential for effluent toxicity, then the Department may require additional effluent characterization in a regulatory order, by permit modification, or in the permit renewal. Toxicity is assumed to have increased if WET testing conducted for submission with a permit application fails to meet the performance standards in WAC 173-205-020, "whole effluent toxicity performance standard." The Permittee may demonstrate to the Department that changes have not increased effluent toxicity by performing additional WET testing after the time the process or material changes have been made.

MIXING ZONES

The Water Quality Standards allow the Department of Ecology to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Both "acute" and "chronic" mixing zones may be authorized for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving all known, available, and reasonable methods of prevention, control and treatment (AKART) and in accordance with other mixing zone requirements of WAC 173-201A-100.

The National Toxics Rule (EPA, 1992) allows the chronic mixing zone to be used to meet human health criteria.

DESCRIPTION OF THE RECEIVING WATER

Water supply (domestic, industrial, agricultural); stock watering; fish migration; fish and shellfish rearing, spawning and harvesting; wildlife habitat; primary contact recreation; sport fishing; boating and aesthetic enjoyment; commerce and navigation. Water quality of this class shall meet or exceed the requirements for all or substantially all uses.

SURFACE WATER QUALITY CRITERIA

Applicable criteria are defined in Chapter 173-201A WAC for aquatic biota. In addition, U.S. EPA has promulgated human health criteria for toxic pollutants (EPA 1992). Criteria for this discharge are summarized below:

Fecal Coliforms	100 organisms/100 mL maximum geometric mean
Dissolved Oxygen	8 mg/L minimum
Temperature	18 degrees Celsius maximum or incremental increases above background
pH	6.5 to 8.5 standard units
Turbidity	less than 5 NTU above background
Toxics	No toxics in toxic amounts (see Appendix C for numeric criteria for toxics of concern for this discharge)

SEDIMENT QUALITY

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400).

The Department has examined the potential for contaminated sediments at this site. The process for determining this potential screens the risks by eliminating further analysis if:

1. The discharge is fresh water to salt water (it is).
2. Has received secondary wastewater treatment (it has not).
3. Discharges to an area with a tidal velocity of more than 1cm/sec (velocity is greater than 28cm/sec).

Since secondary treatment has not been applied, the next set of criteria asks if any of many toxic substances are in the wastewater. Since there are no toxic substances in the wastewater, sediment evaluation was not required. The screening document is shown in Appendix C.

COMPARISON OF EFFLUENT LIMITS WITH THE EXISTING PERMIT ISSUED April 17, 1996, and the permit Modification issued May 1999.

The limits that are common to the existing and proposed permit are identical.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved.

The monitoring schedule is detailed in the proposed permit under Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

LAB ACCREDITATION

With the exception of certain parameters, the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, *Accreditation of Environmental Laboratories*.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-220-210).

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under authority of RCW 90.48.080, that the Permittee develop a solid waste plan to prevent solid waste from causing pollution of waters of the state. The plan must be submitted to the local permitting agency for approval, if necessary, and to the Department.

TREATMENT SYSTEM OPERATING PLAN

In accordance with state and federal regulations, the Permittee is required to take all reasonable steps to properly operate and maintain the treatment system (40 CFR 122.41(e)) and WAC 173-220-150 (1)(g). An operation and maintenance manual will be submitted as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). It has been determined that the implementation of the procedures in the Treatment System Operating Plan is a reasonable measure to ensure compliance with the terms and limitations in the permit.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual industrial NPDES permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending, or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved

engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes, or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control its production in order to maintain compliance with its permit. Condition G10 prohibits the reintroduction of removed substances back into the effluent. Condition G11 states that the Department will modify or revoke and reissue the permit to conform to more stringent toxic effluent standards or prohibitions. Condition G12 incorporates by reference all other requirements of 40 CFR 122.41 and 122.42. Condition G13 notifies the Permittee that additional monitoring requirements may be established by the Department. Condition G14 requires the payment of permit fees. Condition G15 describes the penalties for violating permit conditions.

PERMIT ISSUANCE PROCEDURES

PERMIT MODIFICATIONS

The Department may modify this permit to impose numerical limitations, if necessary to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality Standards for Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The Department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the state of Washington. The Department proposes that this proposed permit be issued for five years.

REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.

1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C.

1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

1983. Water Quality Standards Handbook. USEPA Office of Water, Washington, D.C.

Tsivoglou, E.C., and J.R. Wallace.

1972. Characterization of Stream Reaeration Capacity. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology.

1994. Permit Writer's Manual. Publication Number 92-109

Wright, R.M., and A.J. McDonnell.

1979. In-stream Deoxygenation Rate Prediction. Journal Environmental Engineering Division, ASCE. 105(E2). (Cited in EPA 1985 op.cit.)

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on May 30, 2000, in The Daily World to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on June 4, 2000, in The Daily World to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6285, or by writing to the address listed above.

This permit and fact sheet were written by Gary Anderson, P.E.

APPENDIX B--GLOSSARY

Acute Toxicity--The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

Ambient Water Quality--The existing environmental condition of the water in a receiving water body.

Ammonia--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

Chlorine--Chlorine is used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic Toxicity--The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Class 1 Inspection--A walk-through inspection of a facility that includes a visual inspection and some examination of facility records. It may also include a review of the facility's record of environmental compliance.

Class 2 Inspection--A walk-through inspection of a facility that includes the elements of a Class 1 Inspection plus sampling and testing of wastewaters. It may also include a review of the facility's record of environmental compliance.

Clean Water Act (CWA)--The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of

the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Critical Condition--The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Daily Maximum Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Dilution Factor--A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction.

Engineering Report--A document which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal Coliform Bacteria--Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Mixing Zone--An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (chapter 173-201A WAC).

Monthly Average Discharge Limitation--The average of the measured values obtained over a calendar month's time.

National Pollutant Discharge Elimination System (NPDES)--The NPDES (Section 402 of the Clean Water Act) is the Federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both state and federal laws.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate,

but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Upset--An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C
MERINO'S SEAFOOD
DMR Performance
1996

Bold number pairs are a violation.

Units = Pounds

Parameter	Frequency	Performance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BOD	Monthly Average	Limit	NP	NP	NP	3.7	3.7	NPR	NPR	NPR	NPR	NPR	NPR	261
		Sample	"	"	"	2.3	2.5	"	"	"	"	"	"	139
	Daily Maximum	Limit	"	"	"	23.6	13.6	"	"	"	"	"	"	387
		Sample	"	"	"	9.3	5.4	"	"	"	"	"	"	136
TSS	Monthly Average	Limit	"	"	"	3.8	3.8	"	"	"	"	"	"	44.0
		Sample	"	"	"	4.8	5.4	"	"	"	"	"	"	75.9
	Daily Maximum	Limit	"	"	"	29.5	17.1	"	"	"	"	"	"	65.8
		Sample	"	"	"	19.8	11.5	"	"	"	"	"	"	74.6
O & G	Monthly Average	Limit	"	"	"	.2	.2	"	"	"	"	"	"	6.4
		Sample	"	"	"	.9	.4	"	"	"	"	"	"	7.3
	Daily Maximum	Limit	"	"	"	1.5	.9	"	"	"	"	"	"	9.7
		Sample	"	"	"	3.7	2.2	"	"	"	"	"	"	7.2

NP = No Permit

NPR = No Production

**APPENDIX C
MERINO'S SEAFOOD
DMR Performance
1997**

Bold number pairs are a violation.

Units = Pounds

Parameter	Frequency	Performance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BOD	Monthly Average	Limit	63.8	NP	NP	NRPT	NRPT	NRPT	3448	1414	325	NPR	NPR	4762
		Sample	9.5	"	"	"	"	"	3355	1992	91.7	"	"	222
	Daily Maximum													
		Limit	102	"	"	"	"	"	3187	1364	325	"	"	44.7
		Sample	6.3	"	"	"	"	"	1321	1321	42.8	"	"	2.1
TSS	Monthly Average	Limit	10.7	"	"	"	"	"	1337	541	56.3	"	"	794
		Sample	23.2	"	"	"	"	"	1576	847	272	"	"	801
	Daily Maximum													
		Limit	17.4	"	"	"	"	"	1314	546	55.2	"	"	7.5
		Sample	15.3	"	"	"	"	"	621	561	127	"	"	18.5
O & G	Monthly Average	Limit	1.6	"	"	"	"	"	193	78.1	8.0	"	"	159
		Sample	5.5	"	"	"	"	"	1062	19.9	17.0	"	"	116
	Daily Maximum													
		Limit	2.6	"	"	"	"	"	293	123	8.1	"	"	2.7
		Sample	3.6	"	"	"	"	"	418	132	7.9	"	"	1.5

NP = No Permit
NPR = No Production
NRPT = No Report

**APPENDIX C
MERINO'S SEAFOOD
DMR Performance
1998**

Bold number pairs are a violation.

Units = Pounds

Parameter	Frequency	Performance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BOD	Monthly Average	Limit	MHS	NPR	NPR	NPR	175	158	164	147	1116	709	166	111
		Sample	"	"	"	"	1770	1419	1783	1582	2076	666	97.5	59.4
	Daily Maximum	Limit	"	"	"	"	295	268	265	227	2455	1956	143	199
		Sample	"	"	"	"	1770	1419	2480	2244	2231	796	31.0	27.1
TSS	Monthly Average	Limit	"	"	"	"	180	163	173	151	432	274	27.9	33.3
		Sample	"	"	"	"	1220	342	690	421	674	256	55.4	20.2
	Daily Maximum	Limit	"	"	"	"	369	335	303	292	1180	798	24.4	33.9
		Sample	"	"	"	"	1220	342	915	566	885	268	17.6	9.2
O & G	Monthly Average	Limit	"	"	"	"	10.3	9.4	10.0	8.7	70.0	44.5	4.0	4.8
		Sample	"	"	"	"	222	317	629	333	412	149	3.8	1.2
	Daily Maximum	Limit	"	"	"	"	19.0	17.2	25.9	14.6	226	181	3.6	5.0
		Sample	"	"	"	"	222	317	1528	501	498	201	1.2	0.5

NP = No Permit

NPR = No Production

MHS = Mishandled Samples, Results Not Usable

**APPENDIX C
MERINO'S SEAFOOD
DMR Performance
1999**

Bold number pairs are a violation.

Units = Pounds

Parameter	Frequency	Performance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BOD	Monthly Average	Limit	75.9	31.2	NP	NP	NP	1503	1280	1509	1206	101	NP	198
		Sample	24.3	29.7	"	"	"	1681	1045	1070	876	100	"	40.5
	Daily Maximum													
		Limit	226	71.3	"	"	"	2605	2219	2616	2090	248	"	484
		Sample	14.7	32.5	"	"	"	1681	1045	1070	876	100	"	40.5
TSS	Monthly Average	Limit	12.8	5.2	"	"	"	582	495	583	466	17	"	33.4
		Sample	30.4	6.2	"	"	"	239	351	307	231	38	"	81
	Daily Maximum													
		Limit	38.4	12.1	"	"	"	1063	905	1066	852	42	"	82.3
		Sample	18.4	4.6	"	"	"	239	351	307	281	38	"	81.0
O & G	Monthly Average	Limit	1.9	0.8	"	"	"	94.2	80.2	94.6	75.6	2.5	"	4.8
		Sample	1.5	0.1	"	"	"	7.9	91.3	24.4	169	0.4	"	2.2
	Daily Maximum													
		Limit	5.6	1.78	"	"	"	240	205	241	193	6.2	"	12.1
		Sample	0.9	0.1	"	"	"	7.9	91.3	24.4	169	0.4	"	2.2

NP = No Permit

NPR = No Production

APPENDIX D—RESPONSE TO COMMENTS

Comments from the Washington Department of Health

Comment No. 1

The telephone number listed for the Southwest Regional Office 24-hour response is wrong. The Department of Health's number should be properly attributed.

Response

Numbers corrected.